

# Air Caster Transportation



With over 35 years' experience, Aerofilm Systems designs, develops and manufactures air casters and air caster transport systems. This form of transportation is the ideal solution for moving light to very heavy objects in a safe, ergonomic and cost effective way. It is also ideal for sensitive and therefore often expensive objects because air casters create no vibration during moving.

Air casters are being used in all kinds of industries and applications worldwide. Both standard and custom made. The systems are typically used for internal movement of objects ranging from 100 kgs to over 2.500 metric tons.

The air casters contain a flexible rubber membrane that is fed by compressed air operating from 1 to 4 bar. A controlled leakage of the compressed air creates a thin air film between the floor and the air caster. The air caster can now float a few tenth of a millimetre above the floor with virtually no friction which makes it possible to move heavy loads and objects with relatively low force. It only requires 1 kg of pulling force to move a weight of 1,000 kg.

### For example:

One single air caster with a 400 mm diameter has a capacity of 4.000kgs.

The load itself is only raised by a few centimetres. Due to the low pressure (1-4 bar), no dust cloud is created and the floor does not get damaged because there is no point-concentrated load. The noise level is also low due to the low pressure applied.

For a simplified animation of air caster transportation check [this link](#) or our video on YouTube via the QR/code below:



### Main benefits of air caster transportation:

- Ergonomic; less effort required to move loads
- The only exhaust gas is air
- No floor damage and very low floor load
- Suitable for very heavy loads
- Virtually friction-free, easy movement
- Low to no maintenance
- Very accurate positioning
- Vibration free movement
- No expensive cranes or gantries needed
- Compact, light and efficient design
- Easy to store
- Omni-directional movement
- Applicable in ISO 5 class cleanrooms
- No lubricants needed
- No mechanical wear parts
- No permanent installation needed in your facility

